

Subject To Field Inspection

CHANGES
MUST Be Approved Prior
To Performing Work

Must Comply With
All Washington
State Codes

Validity of permit. The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of the International Codes or any other ordinance of Kitsap County. Permits presuming to give authority to violate or cancel the provisions of the International Codes and ordinances of Kitsap County shall not be valid. IBC & IRC 105

STRUCTURAL NOTES

General Notes:

These structural notes supplement the drawings. Any discrepancy found among the drawings, these notes, and the site conditions shall be reported to the Engineer, who shall correct such discrepancy in writing. Any work done by the Contractor after discovery of such discrepancy shall be done at the Contractor's risk.

The Contractor shall verify and coordinate the dimensions among all drawings prior to proceeding with any work or fabrication. The Contractor shall coordinate between the architectural drawings and the structural drawings. The architectural dimensions are taken to be correct when in conflict with the structural drawings. The Contractor is responsible for all bracing and shoring during construction.

All construction shall conform to the applicable portions of the latest edition of the International Building Code except where noted

Design Criteria:

1.	Live Load	=	Slab on Grade
		=	30 PSF (Snow)
2.	Dead Load	=	15 PSF (Roof)
		=	10 PSF (Walls)
		=	150 PCF (Concrete)
3.	Wind	=	2015 IBC Exposure B @ 110 mph
4.	Earthquake	=	2015 IBC
	Site Class	=	D
	Design Cat.	=	D
	Use Group	=	I
	R	=	6.5
	C _s	=	4
	W _o	=	3
6.	Soil	=	1500 PSF, Assumed bearing capacity

Concrete & Reinforcing Steel:

- All concrete work shall be per the 2015 IBC Chapter 19.
- All reinforcing shall be ASTM A615 Grade 60 except as shown on the plans.
- Concrete shall be in accordance with ASTM 150.
f_c = 2500 PSI @ 28 day
slump = 4" maximum, 6% Air entrained for exterior slabs. In order to minimize shrinkage cracks recommend that the w/c ratio be under 0.5.
- Garage slab and exterior slabs to have minimum of 6x6 W1.4x1.4 WWF with vapor barrier. This is at the owner's option to reduce slab cracking. Crack control joints the responsibility of the contractor. . . Recommend a maximum of 16'x16' grid or as required by geometry.

Steel:

- Anchor bolts shall be ASTM A307 and will have a 3x3x1/4" plate washer.

Carpentry:

- 2X structural framing shall be #2 Douglas Fir.
4x structural members shall be #2 Douglas Fir.
6X members shall be #1 Douglas Fir.
- Roof trusses shall be by a pre-approved manufacturer and constructed according to the specifications of the Truss Plate Institute. Truss shop drawings must be stamped by a licensed engineer and be on site at the time of construction. Preliminary truss drawings must be reviewed prior to construction. It is the truss manufacturer's responsibility to inform the engineer of record of any changes from the preliminary truss lay-out.

Truss manufactures are responsible for all bracing of the trusses including end wall bracing and all other bracing between the building and the trusses unless specifically shown otherwise on the drawings. Contractor to coordinate bracing with engineer of record as required.

- Sheathing at roof shall be laid with face grain perpendicular to supports and end joints staggered 4'-0" on center. Provide 1/8" space at panel edges as required by panel manufacturers. Roof sheathing shall be nailed 6" o.c. edges and 12" o.c field with 10d's unless otherwise noted on the drawings.
- Block and nail all horizontal panel edges at designated shear walls.
- All fasteners in contact with pressure treated lumber will meet the below requirements.

All fasteners including nuts and washers in contract with pressure treated lumber shall be hot-dipped zinc coated galvanized steel, stainless steel, silicon bronze or copper. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be of mechanically deposited zinc coated steel in accordance with ASTM B 695, Class 55 minimum. Fasteners exposed to weather must meet the requirements of the pressure treating manufacturer's minimum. IN ADDITON, the contractor shall coordinate connector/fastener coating requirements with recommendations from connector/fastener manufacturer and type of pressure treating chemical and retention being used. See Section 2304.10.5 of the 2015 IBC for additional information.

Hardware:

All connection hardware shall be Simpson "Strong Tie". Connection hardware exposed to the weather or soil shall be treated as in steel above.

CAUTION:

PLACE TRUSSES PER MANUFACTURER'S RECOMMENDATIONS AND BRACE PER TRUSS COMPANY RECCOMENDATIONS. CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY BRACING AND SHORING REQUIRED FOR PLACING TRUSSES. NOTE THESE DRAWINGS DO NOT INCLUDE ANY TEMPORARY SHORING OR BRACING. PRECISE ENGINEERING RECOMMENDS ALL SHORING AND BRACING BE DESIGNED AND DETAILED BY A LISENCEED ENGINEER.

CONTRACTOR TO FIELD VERIFY ALL CONDITIONS AND ALL ELEVATIONS.

TYPICAL SHEAR WALL NOTES

Use 1/2" dia. by 10" Anchor Bolts (AB's) with single plates and 1/2" dia. by 12" AB's with double and 3x plates spaced as shown on the drawings. AB's shall have 7" of embedment into footing, shall be centered in the stud wall, and shall project through the bottom plate of the wall and have a 3x3x1/4 plate washer. There shall be a minimum of two bolts per piece of sill located not more than 12 inches or less than 4 inches end of each piece. Anchor bolts to be galvanized per the below requirement (Fasteners in contact with pressure treated lumber). At existing foundation use 1/2" diameter Simpson Titen HG bolts with minimum of 4" embedment into the existing concrete.

All wall sheathing shall be 1/2" CDX plywood, 5/8" T1-11 siding, or 7/16" OSB with exterior exposure glue and span rated "SR 24/0" or better. All free sheathing edges shall be blocked with 2x4 or 2x6 flat blocking except where noted on the drawings or below.

All nails shall be 8d or 10d common (8d common nails must be 0.131 inch diameter, Senco KC27 Nails are equivalent. If 10d common nails are called for the diameter must be 0.148 inches, Senco MD23 Nails are equivalent). Nail size and spacing at all sheathing edges shall be as required below or as in the drawings. Nail spacings shall be 12" o.c. for all field nailing except as noted.

Hold downs are Simpson "Strong Tie" and shall be installed per the manufacture's recommendation. Equivalent hold downs by United Steel Products Company "Kant-Sag" that have ICBO approval can be substituted in place of Simpson hold downs. All floor systems must be blocked solid below member that the hold down is attached to. This block should be equal to or larger than the member the hold down is attached to and be placed as a "squash block".

All double and triple studs shall glued and nailed together with 10d's at 3" o.c. for each layer. All 4x studs are to be #2 DF and all 6x studs are to be #1 DF when used for hold downs and shear walls.

FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER

All fasteners including nuts and washers in contract with pressure treated lumber shall be hot-dipped zinc coated galvanized steel, stainless steel, silicon bronze or copper. Fasteners other than nails, timber rivets, wood screws and lag screws shall be permitted to be of mechanically deposited zinc coated steel in accordance with ASTM B 695, Class 55 minimum. Fasteners exposed to weather must meet the requirements of the pressure treating manufacturer's minimum. IN ADDITON, the contractor shall coordinate connector/fastener coating requirements with recommendations from connector/fastener manufacturer and type of pressure treating chemical and retention being used. See Section 2304.10.5 of the 2015 IBC for additional information.

ALL WALL STUDS AND ROOF TRUSS TOP CHORDS AND SECONDARY FRAMING LUMBER SHALL BE DOUG-FIR #2 OR BETTER.

NOTE: MST STRAPS attaches to (2) 2x or 4x studs in wall above and below unless noted otherwise. Nail all holes with 16d sinkers.

Double studs may be use as a substitute for 3x nominal framing call out below. Studs MUST be glued and nailed together with (2) lines of 10d's at 3" on center staggered.

Horizontal blocking for shear walls nailed with 8d's shall be minimum of 2x flat and shear walls nailed with 10d's shall be minimum of 3x flat.

SHEAR WALL SCHEDULE

△ sheathing nailed with 8d's at 6" on center all edges.

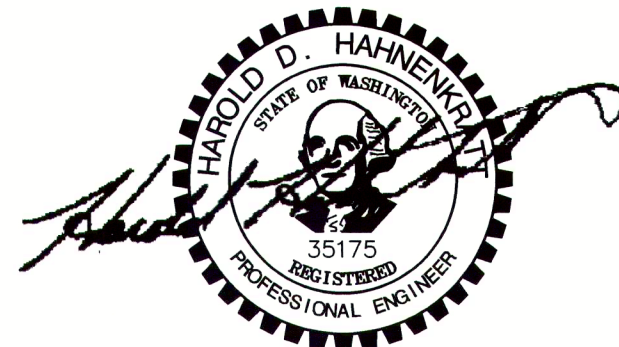
HOLD DOWN SCHEDULE

It is the responsibility of the contractor to locate hold down anchor bolt to accommodate all structural framing. Anchor bolt to be located nearest the corner or opening at the end of the shear wall. All foundation vents to be a minimum of 12" off centerline of the anchor bolt on either side. Holddown stud to be coordinated with shear wall panel edge framing requirements. Larger stud size controls

* For holddown anchor bolt embedment greater that foundation depth, thicken footing for 2'-0" either side of holddown anchor bolt to a depth that provides for 3" clear below the bottom of the anchor bolt. Provide (2) additional #4 x 3'-0" pieces of longitudinal rebar at this location.

△ HDU2

attaches to concrete foundation with a Simpson SSTB 16. HDU2 attaches to double 2x studs or 4x or 6x stud with (6) Simpson SDS 1/4 X 3 Wood Screws in wall above.



JOB NO.

REVISIONS

DESIGNED BY H.H.

DRAWN BY T.B.

DATE 9/18/2020

SCALE AS NOTED

DRAWING TITLE

STRUCTURAL NOTES

SHEAR WALL NOTES

A STRUCTURE FOR

PRO BUILT GARAGE

9518 HORIZON LN. SE

PORT ORCHARD 98367

STRUCTURAL ENGINEER

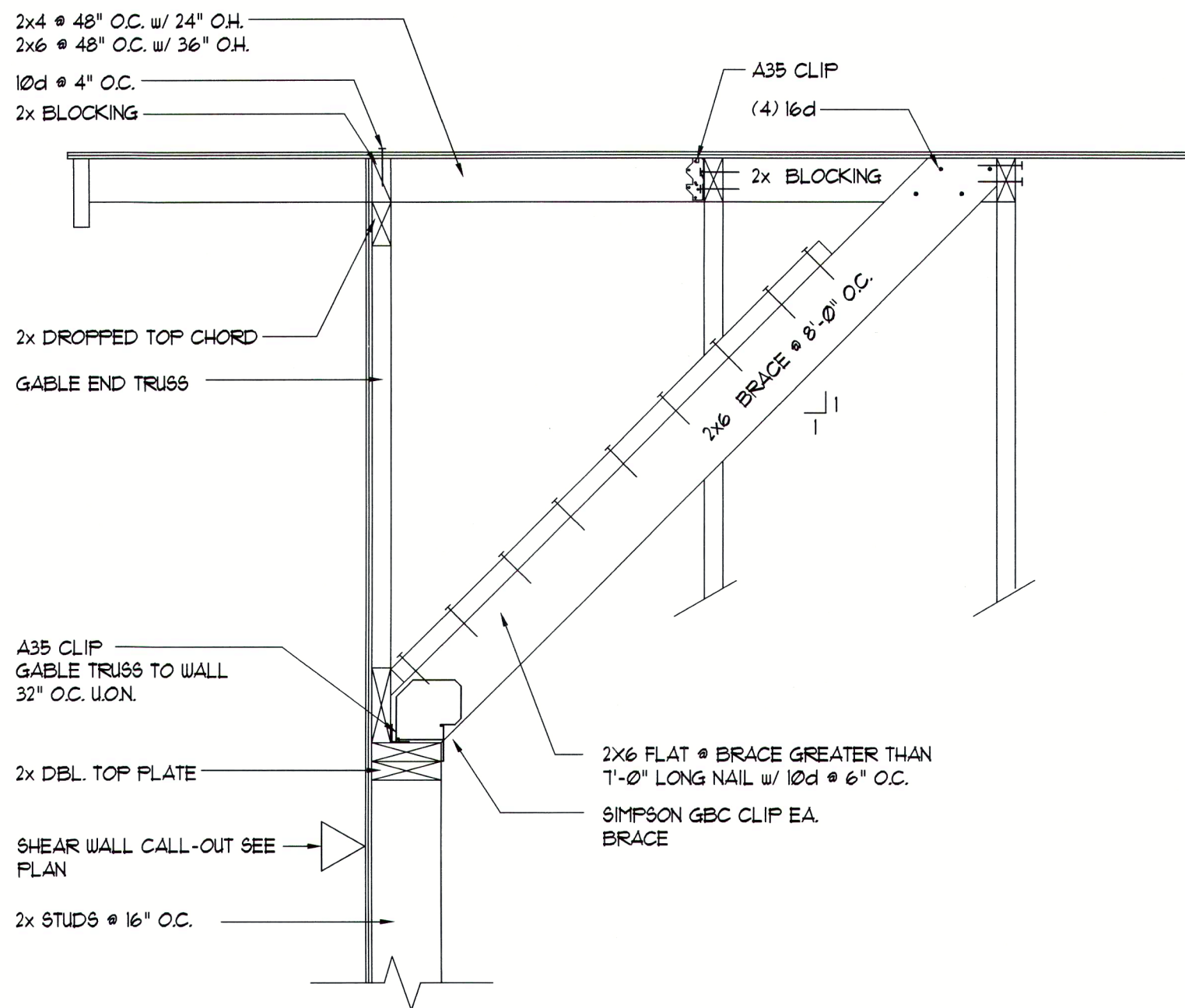
PRECISE ENGINEERING INC.

1011 MELEN ST.

CENTRALIA, WA. 98531

360-736-1137

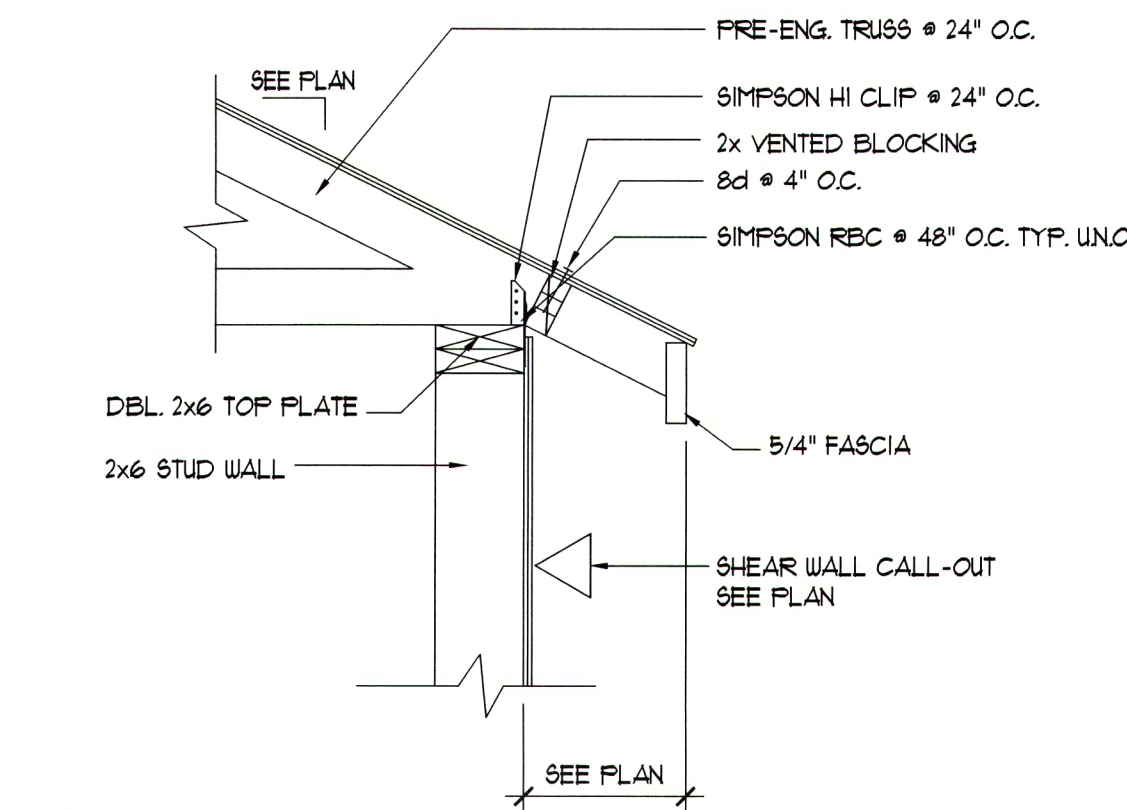
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2

GABLE END TRUSS BRACE

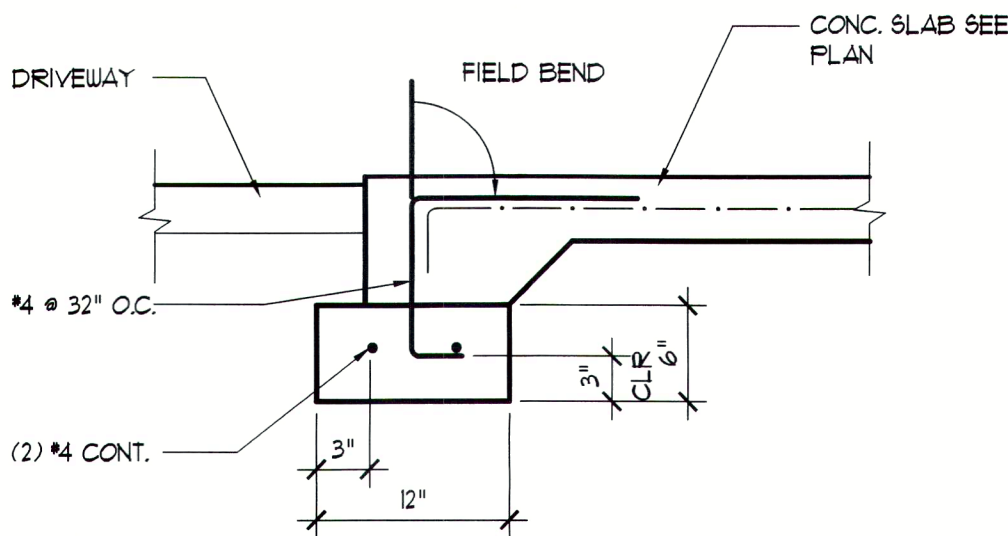
SCALE: 1"=1'-0"



1

TRUSS TO WALL CONN.

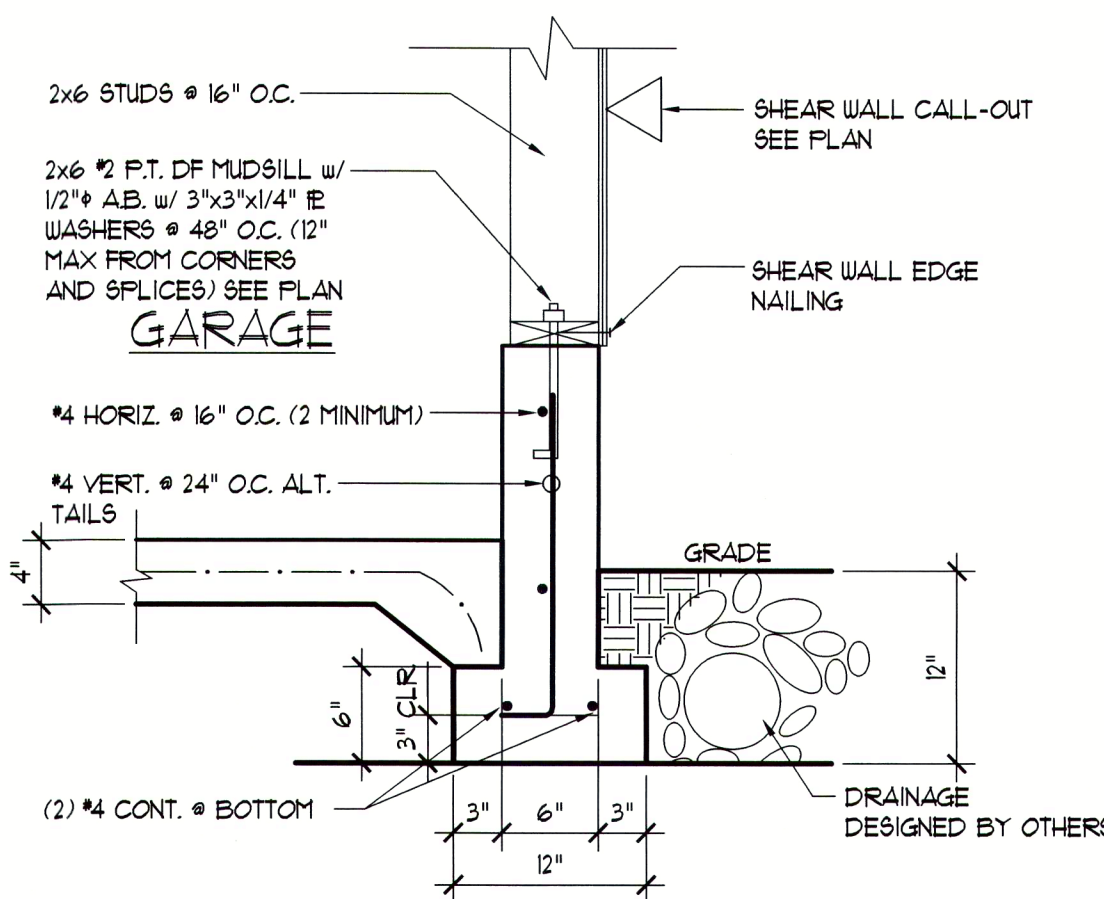
SCALE: 1"=1'-0"



4

FTG. @ GAR. DR. OPENING

SCALE: 1"=1'-0"



3

TYP. EXTERIOR END DET.

SCALE: 1"=1'-0"

CHANGES
MUST Be Approved Prior
To Performing Work

Reviewed for code compliance
with IRC 2015
Kitsap County Building Department
gshapiro@co.kitsap.wa.us
10/12/2020



DRAWING TITLE
FOUNDATION DETAILS
FRAMING DETAILS

A STRUCTURE FOR
PRO BUILT GARAGE
9518 HORIZON LN. SE
PORT ORCHARD 98367

STRUCTURAL ENGINEER
PRECISE ENGINEERING INC.
1011 MELEN ST.
CENTRALIA, WA. 98531
360-736-1137

JOB NO.

S2.0

REVISIONS

DESIGNED BY H.H.

DRAWN BY T.B.

DATE 9/18/2020

SCALE AS NOTED